

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
22 January 2004 (22.01.2004)

PCT

(10) International Publication Number
WO 2004/007939 A1

(51) International Patent Classification⁷: F02M 25/08

(21) International Application Number:

PCT/JP2003/008920

(22) International Filing Date: 14 July 2003 (14.07.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

2002-206865 16 July 2002 (16.07.2002) JP
2003-194096 9 July 2003 (09.07.2003) JP

[JP/JP]: 648-14, Otagaya, Tsurugashima-shi, Saitama 350-2214 (JP). **NAKANO**, Masaru [JP/JP]; 162-48, Kitairiso, Sayama-shi, Saitama 350-1315 (JP). **YAMADA**, Eiji [JP/JP]; 9-18-506, Mizohata-cho, Sakado-shi, Saitama 350-0274 (JP). **YOSHIDA**, Hiroyuki [JP/JP]; 203-1, Higashimitsugi, Sayama-shi, Saitama 350-1302 (JP). **OKADA**, Hiroaki [JP/JP]; 3-13-50, Oka, Asaka-shi, Saitama 351-0007 (JP).

(74) Agents: **KOBAYASHI**, Hiromichi et al.; c/o Shiga Patent office, Ekisaikai Bldg., 1-29, Akashi-cho, Chuo-ku, Tokyo 104-0044 (JP).

(81) Designated States (national): CN, US.

(71) Applicant (for all designated States except US): **MAHLE TENNEX CORPORATION** [JP/JP]; 1-2, Ikebukuro, 3-chome, Toshima-ku, Tokyo 171-0014 (JP).

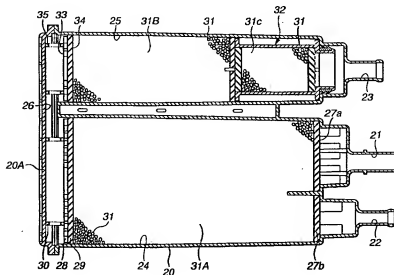
Published:
— with international search report

(72) Inventors; and

(75) Inventors/Applicants (for US only): **UCHINO**, Masashi

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: FUEL VAPOR TREATMENT DEVICE



(57) Abstract: A fuel vapor treatment device for suppressing emission of fuel vapor from a fuel tank or the like of an automotive vehicle. The fuel vapor treatment device comprises a casing having a charge port connected to a fuel tank, a purge port connected to an intake section of an engine, and an atmospheric air port through which atmospheric air is introduced. Fuel vapor adsorbing material is filled in the casing. Additionally, an adsorbing material cartridge is disposed in a part of the casing and includes a cylindrical cartridge main body section having a cross-sectional area smaller than that of the casing. Fuel vapor adsorbing material is filled in the cartridge main body section. Air introduced from the atmospheric air port is flowable through the inside of the cartridge main body section to the fuel vapor adsorbing material in the casing.